Rappaport Vassiliadis Salmonella Enrichment Broth (Harmonized) RDM-H-RVS-01

Principle

The Rappaport Vassiliadis Salmonella Enrichment broth is the modification of the R10 medium (Rappaport et.al. 1956) or RV broth (Vassiliadis et.al. 1978), designed by Van Schothorst et al. (1987). Recommended by USP and JP for microbial limit testing medium for pharmaceutical products especially for *Salmonella species*. The media composed of soya peptone, magnesium chloride, sodium chloride, dipotassium phosphate, potassium dihydrogen phosphate, and malachite green. Soya peptone serves carbon and nitrogen sources for growth requirements. Magnesium chloride raises the osmotic pressure in the medium. The malachite green and magnesium chloride together act as selective agent and inhibit the growth of other organisms than *Salmonellae*. The low pH of the medium (5.2±0.2 at 25°C), combined with the presence of malachite green and magnesium chloride, provides selectivity to highly resistant *Salmonella spp*. The phosphate buffers the medium.

Use: Recommended for selective enrichment of *Salmonella species* from pharmaceutical products in accordance with the microbial limit testing by harmonized principles of USP/JP.

Contents*

Ingredients	Gram/Litre
Soya Peptone	4.500
Magnesium Chloride	29.000
Sodium Chloride	8.000
Dipotassium phosphate	0.400
Potassium Dihydrogen Phosphate	0.600
Malachite Green	0.036
pH at 25˚C	5.2 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 27.11 grams in 1000 ml distilled water. Sterilize by autoclaving at **10 lbs pressure (115°C)** for 15 min, cool it to 42-45 °C and inoculate test sample aseptically.

Specimens types analyzed

Pharmaceutical samples, clinical and non-clinical samples etc.

Precautions to be taken

All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Pale yellow with blue ting colored free flowing, homogeneous powder

Reaction of 2.71 % solution	5.2 ±0.2 at 25 ˚C
pH	5.00- 5.40
Color and clarity of ready medium	Greenish blue colored opalescent solution
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 ºC for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response: Cultural characteristics are observed after incubation at 33–37°C for 18–24 hours. After enrichment in the Harmonized Rappaport Vassiliadis Salmonella Enrichment Broth, recovery is carried out on Xylose Lysine Deoxycholate Agar (RDM-XLDA-01). Inoculum 50-100 CFU.

Organism	ATCC	Growth	Recovery	Colony color On XLD Agar
Salmonella typhimurium	14028	Luxuriant	≥ 70%	Red with black centers
Salmonella abony	NCTC-6017	Luxuriant	≥ 70%	Red with black centers
Salmonella enteritidis	13076	Luxuriant	≥ 70%	Red with black centers
Escherichia coli	8739	Poor	≥ 10%	Yellow
Staphylococcus aureus	6538	Inhibited	--	--
Staphylococcus aureus	25923	Inhibited	--	--

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label.
Note: Sterilize media immediately after reconstitution.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

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CHAITANYA AGRO BIOTECH PVT. LTD.
An ISO 11133:2014, ISO 13485:2016, ISO 9001:2015 CE, CIN NO.: U24210MH1995PTC095220S,
S. No. 120/2, Laxmi Nagar, Umbarnala Road, Malkapur-443101, Dist.: Buldana (M.S.) India. Customer Care +91-8669083859
rdmsales@chaitanyagroupindia.com, mktcabt@chaitanyagroupindia.com, www.chaitanyagroupindia.com